CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.15/NS/CSR-4/820e/CEMENT/2015-16 Date: 23.04.2015

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer**, T. Dasarahalli Sub Division, BBMP, Bangalore.
*AGENCY	:	**Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
*NAME OF THE WORK	:	Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.
*REFERENCE	:	BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015
SAMPLE ID	:	Cement - Sample 2
SAMPLE RECEIVED ON	:	20.04.2015
PERIOD OF TESTING	:	20.04.2015 to 23.04.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	30.50 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	140 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	475 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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Chief Executive Officer

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Job No.: CTCE/BBMP/W.No.15/NS/CSR-4/820e/SAND-Gradation/2015-16 : 23.04.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Shivananda,**
No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.

*** Name of Work** : Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates - Sample 2

Sample Received on : 20.04.2015

Date of Testing : 23.04.2015

AE-15

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	92.00	90-100	90-100	90-100	95-100
2.36	72.00	60-95	75-100	85-100	95-100
1.18	51.50	30-70	55-90	75-100	90-100
600 Micron	27.00	15-34	35-59	60-79	80-100
300 Micron	11.20	5-20	8-30	12-40	15-50
150 Micron	5.20	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.

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Job No.: CTCE/BBMP/W.No.15/NS/CSR-4/820e/AGG/GR/2015-16 : 23.04.2015

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

* Customer	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
* Name of Work	: Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.
Reference	: BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (40mm) - Sample 2
Sample Received on	: 20.04.2015
Date of Testing	: 23.04.2015

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.50	95-100	85-100
20	48.65	30-70	0-20
10	21.15	10-35	0-5
4.75	4.15	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/W.No.15/NS/CSR-4/820e/CC Solid Block/2015-16 : 27.04.2015

TEST REPORT ON SOLID CONCRETE BLOCKS

* Customer	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
* Name of the Work	: Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.
Reference	: BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015
Sample Received on	: 20.04.2015
Date of Testing	: 27.04.2015
Size of Blocks	: 400mm x 200mm x 200mm
Cross Sectional Area	: 80000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	35.12	258.8	3.24	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	34.56	259.6	3.25	
3	Block 3	35.21	260.1	3.25	
4	Block 4	36.20	261.2	3.27	
5	Block 5	35.23	262.3	3.28	
6	Block 6	34.26	263.1	3.29	
7	Block 7	35.65	264.1	3.30	
8	Block 8	36.20	260.6	3.26	

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Job No.: CTCE/BBMP/W.No.15/NS/WMM/Gradation/2015-16

06.05.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Customer : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Mr. N. Shivananda,**
No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.

Name of Work : Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015

Date of Testing : 06.05.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **27000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	845	845	3.1	96.9	95-100
22.4	7270	8115	30.1	69.9	60-80
11.2	5595	13710	50.8	49.2	40-60
4.75	4005	17715	65.6	34.4	25-40
2.36	4050	21765	80.6	19.4	15-30
0.600	2025	23790	88.1	11.9	8-22
0.075	1860	25650	95.0	5.0	0-8

03-15

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Job No.: CTCE/BBMP/W.No.15/NS/CSR-4/820e/Pre Cast Slab/2015-16 25.05.2015

TEST REPORT ON CONCRETE CORE (PRE CAST SLAB)

* Name of Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Name of Agency	:	**Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
* Name of work	:	Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.
Reference	:	BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015
Technical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Pre Cast Slab
Sample Received on	:	20.05.2015
Date of Testing	:	25.05.2015

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	80.00	0.395	2514.65	1.60	0.960	32.05	16.32	17.63	16.92	21.15
2	50.00	81.00	0.403	2533.90	1.62	0.965	32.50	16.55	17.88	17.25	21.56
3	50.00	82.00	0.415	2577.53	1.64	0.970	33.00	16.81	18.15	17.61	22.01

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Job No.: CTCE/BBMP/W.No.15/NS/CSR-4/820e/CUBE/2015-16 25.05.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Shivananda,**
No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.

*** Name of the work** : Improvements & Construction of CC road & drain at Standard School road connected to KK road in Dasarahalli Ward No.15, BBMP, Bangalore.

*** Reference** : BBMP/DZ/AEE/TDSD/PR/2015-16 Dated: 20.04.2015

*** Sample ID** : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{15}

Compressive Strength as on : 28th day

Sample Received on : 27.04.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.04.2015	25.05.2015	8.196	350.5	15.58
2	27.04.2015	25.05.2015	8.235	362.3	16.10
3	27.04.2015	25.05.2015	8.300	365.6	16.25

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*** Customer** : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

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Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{15}

Compressive Strength as on : 28th day

Sample Received on : 27.04.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.04.2015	25.05.2015	8.388	365.8	16.26
2	27.04.2015	25.05.2015	8.452	385.6	17.14
3	27.04.2015	25.05.2015	8.203	355.5	15.80

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